

Appl. No. 09/847,072
Amdt. Dated May 10, 2004
Reply to Office action of March 10, 2004
Attorney Docket No. P12678-US1
EUS/J/P/04-3104

REMARKS/ARGUMENTS

Amendments

The Applicants have amended claims 1, 8, 11, and 15. Claims 1 and 3-22 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the foregoing amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 102(e)

Claims 1-16 and 18-22 stand rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent No. 6,308,267 Issued to Gremmelmaier (hereinafter Gremmelmaier). The Applicant respectfully traverses this rejection and submits that Gremmelmaier does not disclose (directly or inherently) at least the following features present in Claim 1: 1) the mobile terminal registers with the PLMN HLR via the IP network MSC/VLR (Network Access Controller), 2) the H.323 service node provides services directly to the mobile terminal from an IP network component and 3) the IP network in the present invention operates without a HLR. Please note amended claim 1 and the emphasized differences.

1. (Currently Amended) A method of providing wireless services to a mobile terminal within a common service area serviced by both a public land mobile network (PLMN) and an Internet Protocol (IP), comprising the steps of:

responsive to a request to the IP network for service from the mobile terminal, which is roaming from the PLMN,

utilizing a network access controller (NAC) associated with the IP network and emulating a mobile switching center/visitor location register (MSC/VLR) for

registering the mobile terminal with the PLMN home location register (HLR) via an IP network radio base station and an H.323 gatekeeper/service node (SN), wherein the IP network lacks an associated HLR and said SN includes a service layer for providing wireless services associated with the common area; and

providing the requested service to the mobile terminal upon confirmation from the wireless network of eligibility for the requested service . (emphasis added)

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The Applicant respectfully asserts that Gremmelmaier does not teach or suggest the above-emphasized limitations.

Gremmelmaier appears to disclose an arrangement and method for linking an IP network with a mobile radio network utilizing a mobility server. The IP network includes a VLR, an authentication center and an associated home location register (Col. 3, lines 37-48, Col. 5, lines 5-9, and Figure 2). Gremmelmaier also discloses a mobility server that is described in Figure 2. As is known in the art, a mobility server is typically associated with authentication center operations. Gremmelmaier allocates an internal HLR database and authentication database to the mobility server (Col. 3, lines 37-50). As Gremmelmaier states, the "function of the HLR (IP) corresponds to the function of an HLR in a conventional mobile radio network". (Col 4, lines 21-24). HLR (IP) is the HLR associated with the IP network.

The present invention discloses a system and method for providing wireless services in a common service area of an IP network and a telecommunications network without the need for an associated HLR. This is accomplished by connecting an MSC/VLR, associated with the IP network, through an interface to the HLR of the PLMN. Further, a H.323 gatekeeper/service node within the IP network provides services that are associated with the common area. Services that the roaming mobile terminal has subscribed to are determined from the PLMN HLR and transmitted when queried by the MSC/VLR of the IP network.

In contrast to Gremmelmaier, the Applicant's invention discloses a MSC/VLR that communicates outside the IP network with the HLR in the PLMN to register a mobile terminal in the IP network. In other words, the MSC/VLR of the IP network connects to the mobile terminal's home location register in the PLMN. This feature of the Applicant's invention eliminates the need for a HLR in the IP network (as disclosed in Gremmelmaier). In fact, since the HLR for the PLMN is large compared to a HLR that would normally be associated with the smaller IP service area, the IP service area is now capable of handling large numbers of mobile terminals. Also, the H.323 gatekeeper/Service Node (figure 2) provides a connection to the services that would ordinarily be provided by a wireless or PLMN service node. The advantage to the

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Applicant's system is to allow an operator to increase capacity in a specific location without the expense of having to provide an additional HLR and a gatekeeper/service node for that location. In the Applicant's structure, the registering of mobile terminals and supply of services is limited only by the capacity of the PLMN (i.e., very large capacity in comparison). In Gremmelmaier, the capacity of the MPS is limited by the IP network's HLR, which can only support a limited number of subscribers.

What is unique to the Applicant's invention, and what is not suggested in the Gremmelmaier reference, is that Gremmelmaier is providing a wireless network, that includes an HLR, within an IP network,. The Applicant's invention does not require an HLR in the IP network (uses the PLMN HLR which is sized for the PLMN network) and also adds a H.323 gatekeeper/service node so as to provide location-specific services (para. 0030) to the mobile terminal when the terminal is in the common service area of the networks. This feature also provides load sharing for the PLMN wireless network by removing an active mobile terminal from direct connection to the PLMN.

The Applicant respectfully submits that for the above given reasons, Gremmelmaier does not anticipate amended independent Claim 1. Claims 3-7, which depend from claim 1, contain the same novel limitations.

As between Claim 1 and Gremmelmaier, the Applicant respectfully submits that amended independent Claims 8 and 15 contain limitations analogous to those found in Claim 1. For the above given reasons the Applicant respectfully submits that amended independent Claims 8 and 15 and the respective dependent claims 9-14 and 16-22 are not anticipated by the Gremmelmaier reference. The Applicant respectfully requests that the rejection of claims 1 and 3-22 be withdrawn.

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CONCLUSION

In view of the foregoing remarks, the Applicants believe all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for Claims 1 and 3-22.

The Applicants request a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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